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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/659,900	09/11/2003	Xinggao Fang	5668	4186

7590 05/27/2005

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EXAMINER

GREEN, ANTHONY J

ART UNIT	PAPER NUMBER
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1755

DATE MAILED: 05/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/659,900

Applicant(s)

FANG ET AL.

Examiner

Anthony J. Green

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 March 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 7 and 23-34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 7 and 23-34 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 03/04/05.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Response to Amendment***

1. This office action is in response to the amendment submitted on 22 March 2005. Currently claims 7 and 23-34 are pending. Based on applicants amendments and arguments the previous art rejections are withdrawn and new rejections lodged below.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 24-26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Applicant recites in claim 24 that the fluorocarbon is selected from urethane derivatives, esters, acrylic amides, oligomers and polymers however it is unclear as to how these components are considered to be fluorocarbons. Clarification is requested.

### ***Claim Rejections - 35 USC § 102/103***

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
5. Claims 7, 23, and 32-34 are rejected under 35 U.S.C. 102(b) as being anticipated by Xiao et al (US Patent No. 5,747,392).

The reference teaches, in claim 9, a textile fabric having deposited thereon a primer coat comprising an acrylic latex, a polyurethane latex, a fluorochemical and a crosslinker.

The instant claims are met by the reference. It is the position of the examiner that the fluorochemical component meets both the repellent and soil release component. Note that column 10, lines 11+, recite that the fluorochemical provides water and stain resistance. With respect to claim 32 since one compound meets 2 components it is believed that one 3 ratios would be present and these amounts are encompassed by the amounts of the reference absent evidence showing otherwise. As for claim 33 the addition of one or more biocides is taught.

6. Claims 24-32 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Xiao et al (US Patent No. 5,747,392).

The reference was discussed previously. The instant claims are obvious over the reference. With respect to claims 24-28 the reference teaches the use of various fluorochemicals and therefore it would have been obvious for one of ordinary skill in the art to utilize any well known fluorochemical such as a fluorocarbon (claim 24) absent evidence showing otherwise. As for the use of fluoroacrylate alone (claim 25) or further comprising an ester as the fluorochemical (claim 26) or other fluorinated esters or polymers (claims 27 or 28) since these are well known examples of fluorochemicals in the art it would have been obvious to utilize them in the composition of the reference absent evidence showing otherwise. As for the crosslinking component (claim 29) the

reference teaches the use of various melamine/formaldehyde and phenol/formaldehyde resins and their variants as well as others. As for claim 30 while the reference does not teach the use of a derivative of isocyanate it would have been obvious to utilize any well known crosslinking agent known in the textile treating art for the crosslinking agent of the reference without producing any unexpected results. As for claim 31 since the reference teaches the use of the same types (i.e. melamine/formaldehydes) it is believed that this claim is met by the reference. Accordingly the instant claims are rendered obvious by the reference.

7. Claims 7 and 23-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bullock et al (US Patent No. 6,251,210)

The reference teaches, in column 6, lines 12+, a treatment composition comprising a urethane latex, an acrylic latex, a crosslinking resin and an organic fluorochemical textile treating agent.

The instant claims are obvious over the reference. It is the position of the examiner that the fluorochemical component meets both the repellent and soil release component. Note that claim 12, lines 7+, recite that the fluorochemical treating agent provides water repellency and stain resistance and includes unbranded generic fluoropolymers. With respect to claims 23-28 the reference teaches the use of various fluorochemicals and therefore it would have been obvious for one of ordinary skill in the art to utilize any well known fluorochemical such as a fluorocarbon (claim 24) absent evidence showing otherwise. As for the use of fluoroacrylate alone (claim 25) or further

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comprising an ester as the fluorochemical (claim 26) or other fluorinated esters or polymers (claims 27 or 28) since these are well known examples of fluorochemicals in the art it would have been obvious to utilize them in the composition of the reference absent evidence showing otherwise. As for the crosslinking component (claim 29) the reference teaches the use of various melamine/formaldehyde and phenol/formaldehyde resins and their variants as well as others. As for claim 30 while the reference does not teach the use of a derivative of isocyanate it would have been obvious to utilize any well known crosslinking agent known in the textile treating art for the crosslinking agent of the reference without producing any unexpected results. As for claim 31 since the reference teaches the use of the same types (i.e. melamine/formaldehydes) it is believed that this claim is met by the reference. With respect to claim 32 since one compound meets 2 components it is believed that one 3 ratios would be present and these amounts are encompassed by the amounts of the reference absent evidence showing otherwise. As for claim 33, the reference teaches the addition of other additive components. Accordingly the instant claims are rendered obvious by the reference.

8. Claims 7, 23-31 and 33-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vogt (US Patent No. 6,238,266) in view of Schmoyer (US Patent No. 4,014,857) or Lipowitz et al (US Patent No. 4,207,071).

Vogt teaches the use of polyurethane dispersions in combination with crosslinking agents to treat textile materials (see column 1, line 51 - column 2, line 28). Column 2, lines 63+ teach that any other standard textile materials such as dyes,

hydrophobic agents (i.e. fluorocarbons), softening agents etc. may be added and that particularly desired are soil release agents such as those found in US Patent No. 4,014,857 or 4,207,071.

Schmoyer (US Patent No. 4,014,857) teaches, in the abstract, examples and claims, the use of various fluorinated oily soil release agents to treat textiles.

Lipowitz et al (US Patent No. 4,207,071) teaches, in the abstract, examples, and the claims, the use of various ethoxylated silicones to treat textiles as soil release agents.

The instant claims are obvious over the references. While the primary reference does not specifically teach the instant claims, it does teach that compositions that encompass the instant claims may be formulated. Note that column 2, lines 63+ teaches the addition of fluorocarbons as hydrophobic agents which would render obvious the instantly claimed repellent component which would render obvious instant claims 23-24. With respect to claim 24 since the primary reference teaches the use of fluorocarbons it would have been obvious for one of ordinary skill in the art to utilize any well known fluorocarbon such as fluoroacrylate alone (claim 25) or further comprising an ester as the fluorochemical (claim 26) since these are well known examples of fluorocarbons in the art and therefore it would have been obvious to utilize them in the composition of the reference absent evidence showing otherwise. As for claims 27-28 the primary reference teaches the use of a soil release agent and recites many different patents as examples useable. The secondary references are among those cited in the primary reference as examples of soil release agents useable and therefore claims 27-



28 are rendered obvious. As for instant claims 29-31 the primary reference teaches the use of any water borne and/or water-dispersible cross-linking agent composition with polyurethanes and therefore these claims are rendered obvious absent evidence showing otherwise. As for instant claim 33 the reference suggests that other components such as softeners may be added. Accordingly the instant claims are rendered obvious by the references.


#### Information Disclosure Statement

9. The references cited by applicant on the IDS have already been considered previously by the examiner. See the Form PTO-892 which was made of record in the previous office action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony J. Green whose telephone number is 571-272-1367. The examiner can normally be reached on Monday-Thursday 6:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on 571-272-1233. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Anthony J. Green  
Primary Examiner  
Art Unit 1755

ajg  
May 24, 2005